years at a rate of 6.9 visits/1000 persons annually (95%CI: 5.1, 8.7) compared to children 5–17 years at 8.5 visits/1000 persons annually (95%CI: 5.6, 11.3). Visits to office-based physicians, hospital emergency departments and outpatient departments accounted for 85%, 11% and 5% of visits, respectively. Antibiotics were prescribed at 2.5 million visits (38% of encounters) at an estimated cost of $93 million. Broad-spectrum antibiotics prescribed at 39% of visits where an antibiotic was prescribed accounted for $59 million of the total cost for antibiotics. Combined visit and antibiotic costs for the group totaled $441 million. **CONCLUSIONS:** Prescribing of antibiotics for influenza is widespread, increases medical costs and may contribute to antibiotic resistance. Increased use of vaccination and viral testing could reduce antibiotic use and result in cost savings.

PIN25

COSTS AND OUTCOMES OF EXTENDED-RELEASE CLARITHROMYCIN FOR LOWER RESPIRATORY TRACT INFECTIONS

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OBJECTIVES: To evaluate the costs and outcomes of extended-release clarithromycin versus clarithromycin immediate-release for outpatients with bacterial lower respiratory tract infections (LRTIs, community-acquired pneumonia and acute exacerbations of chronic bronchitis). **METHODS:** We developed a decision-analysis model comparing extended-release clarithromycin with immediate-release for LRTIs. Treatment success and adverse event (AE) rates were derived from weighted averages of identified published studies that included dichotomous variables for cure vs. failure (16 immediate-release studies, 4 extended-release). Costs were standard US values. The model included the acute antibiotic treatment period (start of first-line therapy through completion of second-line therapy, if applicable). The model measured the proportion of patients cured on first- and second-line therapy, patients discontinuing due to AEs and lack of efficacy, and physician, antibiotic, and total costs per episode. **RESULTS:** More patients achieved clinical cure with clarithromycin extended-release (83.9%) than with clarithromycin immediate-release (72.8%); AE discontinuation rates were lower for the extended-release group (2.4% versus 4.9% for the immediate-release group). Total costs with clarithromycin extended-release were $32 (16%) less than total costs for immediate-release. Sensitivity analyses indicated that the model is robust to changes in cure and AE discontinuation rates within reasonable ranges. Incorporating greater treatment adherence for extended-release (once-daily) versus immediate-release (twice-daily) therapy resulted in greater cost savings for clarithromycin extended-release. **CONCLUSIONS:** Clarithromycin extended-release is cost saving compared with clarithromycin immediate-release for LRTIs, using base-case results. The model did not include hospitalization, which is uncommon in mild to moderate LRTIs; addition of hospitalizations is likely to demonstrate additional costs savings with clarithromycin extended-release. These differences in clinical and economic results are important in that extended-release therapy can lead to improved patient outcomes with decreased costs. Further research is needed to determine the cause and impacts of these differences in efficacy and tolerability.

PIN26

MENINGOCOCCAL VACCINE IN PORTUGAL—A COST-EFFECTIVENESS ANALYSIS

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OBJECTIVE: To do a cost-effectiveness analysis of the introduction of meningococcal vaccine type C (NeisVac-C™) in Portugal. **METHODS:** Model: The study compared vaccine with no vaccination for a cohort of 100.000 for lifetime using a Markov model. Scenarios for age of vaccine administration: children with less than one year of age, children with one year of age and children with two years of age. The outcomes measured were avoidable cases, avoidable death, avoidable disability and avoidable years of life lost. **RESULTS:** For the case base studied the cost per year of life gained (or lost year of prevented life) for the NeisVac-C™ was 6372€ for vaccination administer after the first year of life and of 12,635€ for vaccination administer during the first year of life. Difference is explained by the need of two doses of vaccine during the first year of life and only one for the other scenario. These costs includes the cost of vaccines, the effect and consequences of vaccines in the consumption of resources of the health system (hospital, outpatients, medicines, exams, etc.), direct costs for the State other than of the health system (support of the Social Welfare and the deficient ones) and the indirect costs generated by the effect of the disease in the productivity lost by the families in the case of children or of the self in the case of disease while in active labor age. Sensitivity analysis showed the robustness of these values. **CONCLUSIONS:** Compared with other interventions routinely done by the National Health Service the administration of the of the NeisVac-C™ it can be considered cost-effective for the Portuguese population.

PIN27

THE IMPACT OF PHYSICIAN PROFILING ON ANTIBIOTIC COST AND UTILIZATION

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OBJECTIVE: This study examines the benefit of physician profiling on cost and utilization of antibiotics. **METHODS:** General Practitioners, Family Practitioners, Internists and Pediatricians were sent an education tool regarding the appropriate use of antibiotics for the treatment of respiratory illnesses for the 2000–01, 2001–02 and 2002–03 seasons. Physicians who prescribed greater than 60 antibiotics in the previous year also received a profile of their first line antibiotic use. The average ingredient cost per prescription for profiled vs. non-profiled physicians was used to determine the impact of physician profiling on antibiotic prescribing behavior. Physicians were also surveyed during the 2000/01 season on the usefulness of the education tool and the profile. **RESULTS:** Approximately seventeen thousand physicians were targeted for each season. The ingredient cost per prescription for first line antibiotics was significantly lower for profiled (N = 3286) vs. non profiled physicians in all three seasons: $5.19 vs. $5.31 ($p < 0.0001$) for season 1; $6.29 vs. $6.57 ($p < 0.0001$) for season 2; and $8.39 vs. $8.57 ($p = 0.0003$) for season 3. The ingredient cost per prescription was also lower for second line antibiotics in the profiled vs. non-profiled groups for each consecutive season: $55.35 vs. $67.09 ($p = 0.057$), $56.53 vs. $57.35 ($p < 0.0001$), and $56.58 vs. $57.22 ($p = 0.0001$), respectively. Out of the 4.1% of physicians who responded to the program survey, 84% agreed that the information in the education tool was informative and useful. Seventy